



PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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|--|--|---|----------------------|
| Applicant's or agent's file reference IH-151 | FOR FURTHER ACTION | | See Form PCT/PEA/416 |
| International application No. PCT/JP2004/009598 | International filing date (day/month/year) 30.06.2004 | Priority date (day/month/year) 25.07.2003 | |
| International Patent Classification (IPC) or national classification and IPC A01N47/36 | | | |
| Applicant ISHIHARA SANGYO KAISHA LTD. et al. | | | |
| <p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> | | | |
| <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</p> | | | |
| Date of submission of the demand 10.12.2004 | | Date of completion of this report 04.07.2005 | |
| Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 | | Authorized Officer Telephone No. +49 89 2399-  | |

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/JP2004/009598

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-71 as originally filed

Claims, Numbers

1-22 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/JP2004/009598

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|-------------------------|
| Novelty (N) | Yes: Claims | 12 |
| | No: Claims | 1-11,13-22 |
| Inventive step (IS) | Yes: Claims | |
| | No: Claims | 1-22 (insofar as novel) |
| Industrial applicability (IA) | Yes: Claims | 1-22 |
| | No: Claims | |

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

1). Herbicidal compositions comprising a herbicidal sulfonylurea and an alkoxyated glyceride, in particular a polyoxyethylene (optionally hydrogenated) castor oil, have been disclosed in all documents cited X in the International Search Report as can be seen from the specific citations in the ISR, especially the examples.

The subject-matter of present claims 1 - 11 and 13 - 22 hence is not novel with respect to the citations of the ISR (Art. 33 (2) PCT).

The fact that other formulation ingredients, such as dicarboxylic acid esters (GB 2 309 904 (= D1)) or particular solvent systems and/or further surfactants (WO 98/16102 A1 (= D2), WO 00/25586 A1 (= D3)), EP 598 515 A1 (= D4) and EP 313 317 A2 (= D5)) are present in the formulations of the prior art is not relevant since the claimed compositions also envisage the presence of such further ingredients (see, for example, present claims 10 and 11 and the description, page 19 - 23, disclosing various additives including ingredients of the formulations of the prior art.)

It is further pointed out, that it is well-known in the art, that addition of surfactants generally increases the effect of herbicides. The subject-matter of present claims 18 and 19 hence is anticipated by D1 - D5 as well.

2). a). The subject-matter of claim 12 is novel, since a combination of sulfonylurea, alkoxyated glyceride and a coadjuvant selected from a chelating agent and a nitrogen-containing fertilizer has not been disclosed in the prior art.

It is, however, not clear which particular technical problem has been solved in a non-obvious way since further addition of such adjuvants is common practice in the art. Claim 12 hence is not considered to be based on an inventive step (Art. 33 (3) PCT).

b). Even if the claims were formulated in such a way, that they are clearly and unequivocally distinct from the contents of D1, their subject-matter would not be considered inventive since no surprising effects **as compared to the effects of compositions based on castor oil derivatives** have been demonstrated.

It is evident from D1, that it is known in the art that ethoxyated castor oil is the preferred alkoxyated glyceride for use in sulfonylurea formulations (D1: page 4, line 29/30). The formulations of D2 - D5 also show, that ethoxyated castor oil is a preferred nonionic surfactant for sulfonylurea formulations.

It would be obvious to replace the castor oil derivatives of the formulations of D1 - D6 by other, closely analogous alkoxyated glycerides, such as those disclosed in D1, page

4 from line 5 onwards.

3). The number of 8 independent method claims (for controlling undesired plants) (claims 13 - 17 and 20 - 22) is too high in view of the requirements of conciseness (Art. 6 PCT; see also Guidelines WIPO 5.13 and 5.42).

Method claims 14 - 17 and 20 - 22 hence should be reformulated as claims dependent on claim 13.

The present formulation of claim 22 suggests that after application of a diluted sulfonyleurea-glyceride formulation, an additional amount of alkoxylated glyceride is applied to the undesired plants. The intended scope of protection of this claim hence is ambiguous (Art. 6 PCT).